



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/743,677	12/22/2003	Richard C. Abbott	Thermo.1013	7799

7590 03/09/2005

Peter A Nieves  
HAYES SOLOWAY PC  
175 Canal Street  
Manchester, NH 03101

EXAMINER	
HECKENBERG JR, DONALD H	
ART UNIT	PAPER NUMBER
1722	

DATE MAILED: 03/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/743,677

Applicant(s)

ABBOTT ET AL.

Examiner

Donald Heckenberg

Art Unit

1722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 14-47 is/are pending in the application.
- 4a) Of the above claim(s) 27-47 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date =
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

1. Applicants' election of Group II (claims 14-26) in the reply filed on January 31, 2005 is acknowledged. Because Applicants did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse. MPEP § 818.03(a).

2. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 120 as follows:

It is noted that this application appears to claim subject matter disclosed in prior Application No. 10/219,205, filed August 15, 2002. A reference to the prior application must be inserted as the first sentence(s) of the specification of this application or in an application data sheet (37 CFR 1.76), if applicant intends to rely on the filing date of the prior application under 35 U.S.C. 119(e) or 120. See 37 CFR 1.78(a). For benefit claims under 35 U.S.C. 120, the reference must include the relationship (i.e., continuation, divisional, or continuation-in-part) of all nonprovisional applications. Also, the current status of all nonprovisional parent applications referenced should be included.

If the application is a utility or plant application filed under 35 U.S.C. 111(a) on or after November 29, 2000, the

Art Unit: 1722

specific reference to the prior application must be submitted during the pendency of the application and within the later of four months from the actual filing date of the application or sixteen months from the filing date of the prior application. If the application is a utility or plant application which entered the national stage from an international application filed on or after November 29, 2000, after compliance with 35 U.S.C. 371, the specific reference must be submitted during the pendency of the application and within the later of four months from the date on which the national stage commenced under 35 U.S.C. 371(b) or (f) or sixteen months from the filing date of the prior application. See 37 CFR 1.78(a)(2)(ii) and (a)(5)(ii). This time period is not extendable and a failure to submit the reference required by 35 U.S.C. 119(e) and/or 120, where applicable, within this time period is considered a waiver of any benefit of such prior application(s) under 35 U.S.C. 119(e), 120, 121 and 365(c). A benefit claim filed after the required time period may be accepted if it is accompanied by a grantable petition to accept an unintentionally delayed benefit claim under 35 U.S.C. 119(e), 120, 121 and 365(c). The petition must be accompanied by (1) the reference required by 35 U.S.C. 120 or 119(e) and 37 CFR 1.78(a)(2) or (a)(5) to the prior application (unless previously submitted), (2) a surcharge under

Art Unit: 1722

37 CFR 1.17(t), and (3) a statement that the entire delay between the date the claim was due under 37 CFR 1.78(a)(2) or (a)(5) and the date the claim was filed was unintentional. The Director may require additional information where there is a question whether the delay was unintentional. The petition should be addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

3. The disclosure is objected to because of the following informalities:

At various places the specification refers to various other U.S. patent applications. Some of the application numbers have been left blank (see for example, p. 10, ll. 19-20). These application numbers should be added. Appropriate correction is required.

4. Claim 23 is objected to because of the following informalities:

Claim 23 recites "said back said" in line 2. This should apparently read "said back side." Appropriate correction is required.

Art Unit: 1722

5. The following is a quotation of the second paragraph of 35

U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 21 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Claim 21 recites that an electrically insulating element is disposed between the housing and the resistive element.

However, claim 14 (from which claim 21 depends) already recites the electrically insulating element. It is therefore unclear what element claim 21 is referring to. Appropriate clarification and correction is required.

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 1722

8. Claims 14, 15, 17-23 rejected under 35 U.S.C. 102(b) as being anticipated by Wytkin (U.S. Pat. No. 5,989,008).

Wytkin discloses a molding apparatus. The apparatus comprises a shell (48 and 50) with a cavity side and a back side, wherein the cavity side defines a mold cavity (see Fig. 8). The apparatus further comprises electrical resistive heaters (52) comprising resistive elements and electrically insulated elements (cl. 3, l. 66 - cl. 4, l. 7), wherein the heaters are shaped to conform to at least a portion of the back of the shell (see Fig. 14). A housing (62) is also provided for supporting the shell and the heater, with the heater disposed between the shell and the housing (see Fig. 8). Note, as the heaters (52) are surrounded by conductive material (54), they are adhered to the back side of the shell (see Fig. 8).

Wytkin further discloses a thermal barrier element (60) between the heater and the housing (see Fig. 8), and the apparatus to be provided with a cooling jacket (56).

9. Claims 14, 16, 19, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Jensen et al. (U.S. Pat. No. 5,160,396).

Jensen discloses a molding apparatus provided with a low thermal inertia heater. In the embodiment depicted in Figure

Art Unit: 1722

2, the apparatus comprises a shell (18, 20, 22) comprising a cavity side and a back side, with the cavity side defining a mold cavity (24). A resistive heater (36) comprising a resistive element and an electrically insulating element is shaped to placed in conformal contact with the back side of the shell (cl. 3, ll. 40-58). The apparatus is further provided with a housing for supporting the shell and heater, with the heater disposed between the shell and housing (see Fig. 2). As the heater is merely wrapped around the shell, it is not physically or chemically adhered to the shell.

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.



Art Unit: 1722

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicants are advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claim 24 rejected under 35 U.S.C. 103(a) as being unpatentable over Wytkin in view of Jensen et al.

Wytkin discloses the molding apparatus as described above. Wytkin does not disclose a portion of the heater disposed between at least a portion of the one or more additional heaters and the back side.

Art Unit: 1722

Jensen discloses a molding apparatus. The apparatus includes a heater element (36) which is applied in layers around the mold cavity such that parts of the heater are disposed between portions of the one or more parts of the heater and the back side of the shell forming the cavity (see Fig. 2). The heater configuration allows for the appropriate temperature to be applied to the molding cavity (see cl. 3, ll. 40-58).

It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to have modified the apparatus of Wytkin as such to have used additional heaters disposed between at least a portion of the one or more additional heaters and the back side of the shell because such a heater configuration allows for appropriate temperatures to be applied to the molding cavity. Note, while such a modification requires the duplication of the heater, generally, the duplication of a known part for a multiplied effect has no patentable significance unless it can be shown that there is a new and unexpected result. See St. Regis Paper Co. v. Bemis Co., Inc., 549 F.2d 833, 193 USPQ 8 (7th Cir. 1977); In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

Art Unit: 1722

14. Claims 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wytkin in view of Blackmore (U.S. Pat. No. 6,146,576).

Wytkin discloses the molding apparatus as described above. Wytkin does not disclose the mold to comprise thermocouples.

Blackmore also discloses a molding apparatus. The apparatus includes a plurality of thermocouples for the purpose of allowing for temperature control of the apparatus (cl. 10, 11. 61-67).

It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to have modified the apparatus of Wytkin to further include a plurality of thermocouples because this would allow for temperature control of the apparatus as suggested by Blackmore.

15. The following cited reference which is not relied upon is deemed pertinent to the instant application:


Michaud-Soret (U.S. Pat. No. 4,659,056) discloses an electrically heated mold.

Ferrara, Jr. et al. (U.S. Pat. No. 4,970,949) discloses a vertically aligned batch baker.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald Heckenberg whose telephone number is (571) 272-1131. The examiner can normally be reached on Monday through Friday from 9:30 A.M. to 6:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benjamin Utech, can be reached at (571) 272-1137. The official fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <<<http://pair-direct.uspto.gov>>>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

 3-7-5  
Donald Heckenberg  
A.U. 1722